POLREP 01
12th Street Dump Site
(aka 12th Street Landfill)
near 12th Street Ramp to I-495
Wilmington, New Castle Co., DE 19802

ATTN: RRC

I. SITUATION (as of 3 September 99)
EVENT: CERCLA Removal Assessment

A. EPA Removal Branch received a request from the Delaware Department of Natural Resources and Environmental Control (DNREC) to assist with an assessment of several deteriorated drums and potentially contaminated soil along the bank of the Brandywine River near 12th Street in Wilmington, Delaware. The OSC, DNREC, and an official of the City of Wilmington met at the location, found the drum and disposal area and initiated a CERCLA Removal Assessment on 7 July 1999.

B. Due to the existence of several potentially affected properties and an active railroad, the OSC concurred with DNREC and determined that a property survey would also be necessary.

C. The disposal location is primarily on property owned by the City of Wilmington. Adjacent and potentially affected properties include those owned by the State of Delaware, the Brandywine Industrial Complex, Asset Recovery Services,. and the Norfolk & Southern Railroad. The OSC received verbal permission to access all properties, written permission to access the City of Wilmington property and executed a Right-of-Entry Agreement with the Railroad by August 23, 1999, after verifying ownership through a deed search. Access to parcels required coordination with the Delaware Department of Transportation and the Norfolk and Southern Railroad.

D. Assessment and sampling activities were initiated August 25, 1999. EPA contractors facilitated access to and a survey of overgrown areas by flattening tall grass and removing small trees. Samples of surface soil and river bottom sediment were collected to determine if surface soils posed a threat to trespassers and the River environment. Samples of drum residues were also collected. EPA also excavated several test pits to characterize subsurface conditions. Drum remains and elevated organic vapor readings (e.g., 2000 ppm) were detected in two test pits. All test pits contained remains of rubber hoses. An ash or slag-like material was found in two test pits. Water in one test pit was also collected. Straw was placed on disturbed areas to minimize erosion until grass re-grew in disturbed areas.

E. Survey activities continued periodically through September 3, 1999, when the assessment activities were completed.

F. All samples were packaged and sent to multiple laboratories for analysis for metal and organic contaminants.

II. FUTURE ACTIVITIES

A. The OSC will await receipt of analytical data, expected within 30 days, to determine if response actions are necessary at this Site. The remote location of the debris and waste area coupled with the potential damage associated with hasty excavation of drums from the riverbank leads the OSC to determine that stabilization or removal actions need to consider the environmental data.

B. The OSC will coordinate with DNREC, DELDOT, and the City of Wilmington and discuss analytical results with these organizations above receipt.

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Michael Towle, OSC
US EPA - Region III
Philadelphia, PA 19103

POLREP 02
12th Street Dump Site
(aka 12th Street Landfill Site)
near 12th Street Ramp to I-495
Wilmington, Delaware 19802

ATTN: RRC

cc: C. Kleeman
G. Adams (USCG-COTP)
A. Breslin (DNREC)
S. Garvin

I. SITUATION (as of 13 March 2000)
EVENTs: Completion of Removal Site Evaluation
Action Memorandum Approval

A. This Site is located along the Brandywine Creek, south of 12th Street and west of I-495.

B. The Site is located in the coastal zone. However, USCG and EPA have agreed that EPA will continue with FOSC lead at this Site.

C. The On-Scene Coordinator (OSC) completed a Removal Site Evaluation at the 12th Street Landfill/Dump Site pursuant to Section 300.410 of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). The Removal Site Evaluation found a release of hazardous substances, most notably lead, from the Site that poses a substantial threat to the environment and poses a potential threat to human health. The OSC finds that Site conditions warrant a Removal Action pursuant to the factors listed in Section 300.415 of the NCP, identified in the Action Memorandum, and summarized below in this POLREP.

1. High levels of lead exist in the surface soil and sediment at the Site. Lead concentrations up to 264,000 mg/kg are found in soil at the Site. Lead concentrations up to 19,500 mg/kg are found in the sediment of the Brandywine Creek adjacent to the Site. Lead is a hazardous substance and has released into the environment.

2. The lead in the sediment at the Site poses a substantial environmental threat to aquatic species. The need for removal activities to mitigate this threat is supported by EPA, Federal Trustee agencies (U.S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration(NOAA)) and the Delaware Department of Natural Resources and Environmental Control (DNREC).

3. The lead at the Site poses a threat to human receptors through potential incidental ingestion of contaminated soil.

4. Erosion of contaminated soil and a lack of suitable cover material facilitates the release of hazardous substances from the Site and potential exposure to human and environmental receptors.

D. EPA Region III approved a Removal Action at the 12th Street Landfill/Dump Site on 13 March 2000 with approval of an Action Memorandum. The Action Memorandum itemizes the actions to be initiated in order to mitigate the threats posed by the Site. The actions are summarized below in this POLREP and will be conducted pursuant to erosion and sedimentation control requirements of the State of Delaware to the extent practicable.

1. Remove drums and other wastes from the Site.
2. Grade Site to best minimize erosion and facilitate proper drainage.
3. Stabilize eroding and contaminated soil.
4. Cover contaminated soil.

E. The Action Memorandum establishes an Estimated Total Project Ceiling of $1,983,000. The proposed distribution of funding is as follows:

SOURCE	CEILING
ERRS	$1,623,000
SATA	$ 120,000
EPA	$ 240,000
TOTAL	$1,983,000

II. ACTIONS

A The OSC completed a Removal Site Evaluation, determined the Site posed a threat to human health and the environment, and drafted an Action Memorandum proposing a Removal Action to mitigate threats posed by the Site. The Action Memorandum was approved 13 March 2000.

B. The OSC notified Federal Trustees of the release of hazardous substances to the environment and coordinated the proposed removal activities with federal and state natural resource trustee agencies. A draft Action Memorandum was sent to trustee agencies.

C. In order to complete the Removal Site Evaluation, the OSC received approval to access the Site from the City of Wilmington. The OSC received approval to access adjacent properties (necessary to gain access to the Site) from Norfolk and Southern Railroad and the State of Delaware.

D. The Removal Site Evaluation was completed by the OSC and the EPA SATA contractor. Sample and analytical events were conducted on a number of occasions and coordinated with DNREC, the City of Wilmington, Norfolk and Southern, and the Delaware Department of Transportation. The Removal Site Evaluation was completed over a period of many months and was

conducted in phases to accomodate the analytical needs of trustee agencies, access concerns, and weather conditions. The Removal Site Evaluation required a deed search, property survey, access negotiation, test pits, sediment contamination delineation, and multiple soil sample events leading to a prolonged evaluation process. The field sampling events are detailed in a Trip Report and are summarized below:

1. August/September 99: Soil, Sediment, and Waste Sampling - After receiving access, the vegetation was cleared to allow for a property survey and sampling access in the area of suspected contamination. Drums were found buried in the soil after test pits were completed. Lead, and other inorganic contaminants were found in the soil and sediment. Organic contaminants, including toluene and 2-methylnapthelene, were associated with the drum wastes.

2. January 00: Sediment and Soil Contamination Delineation - Consultation with federal and state natural resource trustee agencies lead the OSC to conduct additional sampling of soil and sediment to detemine if contamination was limited to the observed dump area and nearby sediments or if a more expansive area was contaminated. XRF technology (and laboratory confirmation) was utilized to determine that the area of contamination was limited to the dump site and nearby sediment.

3. February 00: Sediment Sampling and Biotoxicity testing - the OSC conducted additional sediment sampling to determine of contaminants were only at the surface or extended to depth. Additionally, samples of soil were collected for the purposes of conducting biotoxicity testing. Lead contamination extends to a depth of about 12 inches in a very limited area.

E. The OSC met with representatives of the City of Wilmington to brief city officials on the status of the Removal Site Evaluation and potential Removal activities.

F. The Action Memorandum discusses the restrictions to dredging for actions which do not pose a substantial threat and provides justification for proceeding with the proposed Removal Action outlined inthe Action Memorandum. Briefly, the action will emplace a barrier between the Creek and the Site which will prevent sediment release during the action. Since sediment will be excavated while exposed, their will be no opportunity for sediment to entrain in the water column.

III. FUTURE ACTIONS

A. Prepare/Arrange for access to contaminated property in order to conduct a Removal Action.

B. Prepare an Erosion and Sedimentation Control Plan to guide removal activities in general compliance with erosion and sedimentation control requirements of DNREC.

C. Select an appropriate control (e.g., coffer dam) to isolate the Site from the Brandywine Creek to minimize erosion of contaminants and soil into the Creek during Removal Action.

D. Conduct a meeting with federal and state natural resource trustee and environmental agencies to evaluate cover materials and discuss practical actions necessary to implement the Removal Action in compliance with erosion and sedimentation requirements of the State of Delaware.

E. Evaluate Applicable or Relevant and Appropriate Requirements (ARARs) recently identified by DNREC.

F. Coordinate with City of Wilmington.

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Michael Towle, OSC
EPA Region III
Philadelphia, PA 19103

POLREP 03
12th Street Dump Site
(aka 12th Street Landfill Site)
near 12th Street Ramp to I-495
Wilmington, Delaware 19802

ATTN: RRC
cc: A. Breslin (DNREC)
Wilmington Council
P. Welsh (DELDOT)

I. SITUATION (as of 4 April 2000)
EVENT: Initiation of Removal Action

A. The OSC initiated removal activities at the Site with a meeting involving cleanup and technical assistance contractors as well as representatives from DNREC and DELDOT on 3 April 2000. The EPA contractors which will conduct upcoming activities include: Guardian Environmental Services of Bear, Delaware (Guardian), which will conduct cleanup related activities; Weston, which will prepare an Erosion and Sedimentation Control Plan and related engineering activities; and Stevens Environmental which will conduct a topographic survey as a subcontractor to Weston.

B. The OSC arranged for continued access to the Site by coordination with the State of Delaware (DELDOT) and by extending the right-of-entry agreement with Norfolk and Southern until May 1, 2000. The City of Wilmington continues to provide access to the contaminated parcel. Additional access related concerns must still be accomplished with adjacent land owners and adjacent leasees to improve the ability for cleanup contractors to complete removal actions. Additionally, the scope of access with Norfolk and Southern needs to be expanded to accommodate Removal Actions. However, current access limitations are suitable for implementation of upcoming removal activities.

C. The Action Memorandum establishes an Estimated Total Project Ceiling of $1,983,000. The proposed distribution of funding is as follows:

SOURCE	CEILING
ERRS	$1,623,000
SATA	$ 120,000
EPA	$ 240,000
TOTAL	$1,983,000

II. ACTIONS

A The OSC initiated a Removal Action at the 12th Street Landfill/Dump Site on 3 April 2000. A tentative start date for onsite activities is set for 5 April 2000 pending renewal of right-of-entry agreements with Norfolk and Southern allowing personnel and vehicle traffic over the active siding

and verification of appropriate requirements contained in the right-of-entry agreement. The OSC signed the new right-of-entry on 4 April 2000. The contaminated parcel can only be accessed through land owned/controlled by State of Delaware and by crossing the Norfolk and Southern railroad tracks.

B. The OSC coordinated likely future needs involving activities on property controlled by DELDOT with DELDOT personnel. DELDOT and EPA will continue coordination efforts and the OSC will better define needs once access corridor is established.

C. On 3 April 2000, The OSC and DNREC personnel communicated with an adjacent business owner regarding access impediments created by business assets staged between the Site and the 12th Street Right-of-Way. Agreement was reached regarding the movement of materials to create a corridor through which EPA may access the Site from the 12th Street public roadway after security fencing enclosing the assets is relocated. Activities will need to be coordinated with Norfolk and Southern and the State of Delaware (through DELDOT) which own or control real property in this corridor area. Ideally, this corridor will be used for primary access to and from the Site while the existing access through the railroad property and over the tracks is maintained for a secondary entryway. The OSC will continue to coordinate with business owners, DELDOT, and Norfolk and Southern to establish a suitable corridor of entry to the Site.

D. On 3 April 2000, EPA and DNREC discussed activities which may occur prior to completion of a Site Erosion and Sedimentation Control Plan (E&S Plan). Weston is now preparing the E&S Plan, but a detailed survey and topographic map is needed to complete the E&S Plan. Guardian is directed to clear vegetation from the Site to facilitate Removal activities. The clearing of vegetation will enable completion of a suitable elevation survey needed for the E&S Plan. The survey will be conducted by Stevens Environmental (a subcontractor to Weston). In the absence of an approved E&S Plan, clearing activities will be limited to removal of vegetation and tree topping without disturbance of the soil. Any cleared area which exposes bare soil will be mulched.

E. On 4 April 2000, analytical data derived from toxicity tests conducted on Site soils was received and evaluated. The analytical data indicate that a significant difference exists between the survival rate of organisms in control soils (93%) and Site soils with elevated contaminant levels (72%). The survival rate of organisms in uncontaminated soils at the Site was 83%. The analytical data will be discussed with DNREC and Federal Natural Resource Trustee agencies and considered in the selection and implementation of activities intended to cover contaminants left on the Site.

III. FUTURE ACTIONS

A. Initiate field activity 5 April 2000.

B. Communicate Site actions to the City of Wilmington.

C. Continue actions needed to improve access to contaminated property in order to conduct an efficient Removal Action. Conduct meeting 7 April 2000 regarding creation of an access corridor from 12th Street to the Site.

D. Complete an Erosion and Sedimentation Control Plan to guide removal activities in general compliance with erosion and sedimentation control requirements of DNREC.

E. Select an appropriate control (e.g., coffer dam) to isolate the Site from the Brandywine Creek to minimize erosion of contaminants and soil into the Creek during Removal Action.

F. Evaluate placement of fencing around the contaminated area to minimize access by trespassers to contaminated area and provide security for future removal activities. Fenced area will be posted to notify trespassers that the area should not be entered.

G. Conduct a meeting with federal and state trustee and environmental agencies to evaluate cover materials and discuss practical actions necessary to implement the Removal Action in compliance with erosion and sedimentation requirements of the State of Delaware.

H. Evaluate Applicable or Relevant and Appropriate Requirements (ARARs) recently identified by DNREC and integrate into removal strategy.

I. Coordinate with local and state officials and adjacent businesses.

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Michael Towle, OSC
EPA Region III
Philadelphia, PA 19103

POLREP 04
12th Street Dump Site
(aka 12th Street Landfill Site)
near 12th Street Ramp to I-495
Wilmington, Delaware 19802

ATTN: RRC

cc: A. Breslin (DNREC)
Wilmington Council
P. Welsh (DELDOT)

I. SITUATION (as of 21 April 2000)
EVENT: CERCLA Removal Action

A. Removal activities at this dump of abandoned industrial materials is focused on several preparatory activities necessary before any earth disturbance work can commence. The OSC has directed that the SATA contractor (Weston) develop an Erosion and Sedimentation Control Plan, which will include a topographic survey, and provide several options for isolation of the Site from the Brandywine Creek. The OSC has directed the ERRS contractor (Guardian) to begin removal of the vegetation on the Site to facilitate all future removal work. EPA and DNREC will approve the E&S Plan before initiation of earth disturbance activities.

B. Access issues at this Site remain critical to successful implementation of the Removal Action. Representatives of Norfolk & Southern, DE Dept. Of Transportation, and local businesses will need to work with the OSC to develop an access corridor which enables vehicles, materials, and personnel associated with the Removal to access the Site and implement the action with minimal disruption to operating business community. These discussions continue.

C. The Action Memorandum establishes an Estimated Total Project Ceiling of $1,983,000. The proposed distribution of funding is as follows:

SOURCE	CEILING
ERRS	$1,623,000
SATA	$ 120,000
EPA	$ 240,000
TOTAL	$1,983,000

II. ACTIONS

A The OSC initiated a Removal Action at the 12th Street Landfill/Dump Site on 3 April 2000. The ERRS contractor initiated removal of vegetation from the Site on April 5, 2000, after the OSC notified property owners and the railroad. Vegetation is removed to ground level, chipped and stored at the Site. Trees from the Creek bank will be removed using a grappler attachment to minimize the dropping of trees into the Creek.

B. The OSC conducted a meeting on April 7, with the railroad, DELDOT, DNREC, Weston, and Guardian. The purpose of the meeting was to establish access needs and to locate the routes for access to and from the Site. The meeting intended to identify probable construction details related to the routes. Access from 12th Street will require the cooperation of business located in the Brandywine Industrial Park, strengthening of a small section of railroad track, and movement of a fence and business assets. Access from a route through Norfolk and Southern will require some minor road improvements, installation of a culvert crossing, and a construction road. The location of Site staging area confirmed with all parties.

C. The OSC requested that affected business consider movement of assets if possible. The affected business (ARS) has agreed and offered to start moving assets and fence when practical. The OSC will monitor this progress.

III. FUTURE ACTIONS

A. Continue removal of vegetation. Activity is anticipated to be complete April 21, 2000.

B. Continue to monitor business effort to relocate assets to facilitate access to the 12th Street Site.

C. Provide scope for access agreement with Norfolk and Southern to Regional Counsel.

D. Complete an Erosion and Sedimentation Control Plan to guide removal activities in general compliance with erosion and sedimentation control requirements of DNREC.

E. Select an appropriate control (e.g., coffer dam) to isolate the Site from the Brandywine Creek to minimize erosion of contaminants and soil into the Creek during Removal Action.

F. Evaluate placement of fencing around the contaminated area to minimize access by trespassers to contaminated area and provide security for future removal activities. Fenced area will be posted to notify trespassers that the area should not be entered.

G. Conduct a meeting with federal and state trustee and environmental agencies to evaluate cover materials and discuss practical actions necessary to implement the Removal Action in compliance with erosion and sedimentation requirements of the State of Delaware.

H. Evaluate Applicable or Relevant and Appropriate Requirements (ARARs) recently identified by DNREC and integrate into removal strategy.

I. Coordinate with local and state officials and adjacent businesses.

Michael Towle, OSC
EPA Region III
Philadelphia, PA 19103

POLREP 05
12th Street Dump Site
(aka 12th Street Landfill Site)
near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council

I. SITUATION (as of 26 May 2000)
Event: CERCLA Removal Action

A. Removal activities at this Site now include preparatory steps for full mobilization anticipated for 30 May 2000. The Site vegetation has been cleared and utilities have been extended into the Site from nearby 12th Street. An Erosion and Sedimentation Control Plan for the first phase of activities at the Site has been prepared by Weston. A coy of the Plan has been submitted to DNREC for their consideration.

B. Access approval has been received from Norfolk and Southern Railroad and from the Delaware Department of Transportation to cross or utilize properties owned or controlled by these parties adjacent to the Site. These approvals enable the bulk of the Removal Action to begin.

C. Equipment and other assets belonging to a business adjacent to the Site remain in locations that will impede completion of the Removal Action. These equipment and assets are apparently located on three parcels of land. One parcel is owned by the Delaware Department of Transportation and one by the City of Wilmington (Economic Development Corp.). The OSC has discussed movement of these assets with their owner. Although the owner has pledged cooperation to move these equipment and assets in late April, very little has been done. The OSC estimates that the equipment will impede the Removal Action in about 45 days and has forwarded this information to EPA counsel.

D. The Action Memorandum establishes an Estimated Project Ceiling of $1983,000. The proposed distribution of funding is as follows:

ERRS (Guardian)	$ 1,623,000
SATA (Weston)	$ 120,000
EPA	$ 240,000
TOTAL	$ 1,983,000

II. ACTIONS

A. Guardian completed cutting vegetation to ground level. Branches have been chipped and spread onto bare soil areas or piled. Large branches remain in a pile. Stumps remain in the ground. These larger items will be dealt with at a later time. Additional vegetation on the southern end of the Site was removed to allow a clear line of Site to the railroad to increase safety of crossing the tracks.

B. Guardian coordinated the installation of poles to support new electricity and telephone connections to the Site. These utilities have been installed to the Command Area of the Site.

C. The OSC directed Guardian to obtain and install a fence to surround the operational and command area to improve security at the Site. After removal of the vegetation, the number of trespassers to the Site area seemed to increase. At least one trespasser dumped a load of trash near the railroad tracks (a common practice as evidenced by the trash and debris in the area). The fence is installed at this time with a gate and signs.

D. Guardian has coordinated with the water utility to extend a service line to the Site. This service is extended from a valve near the railroad tracks and will be used for dust suppression, decontamination, and potable water service.

E. The OSC directed Guardian to arrange for sanitation units in the command trailers. These units will decrease the number of subcontractor trips across the tracks.

F. Weston completed the first phase of an Erosion and Sedimentation Control Plan. This document outlines how the Site roadway and staging areas will be implemented to reduce erosion from the Site. A sedimentation basin is also to be constructed to capture runoff from the Site. The Plan was completed 24 May and a copy was sent to DNREC for comment and consideration.

G. The OSC received results of toxicity tests on the contaminated soil at the Site. The test results indicate that arsenic and chromium pose more of a threat to ecological receptors (represented by earthworms) than does the lead at the Site. In general, samples containing elevated levels of arsenic or chromium (relative to other Site samples) do not necessarily contain elevated levels of lead. The OSC will review Site data and determine if lead can be used as a single tracer contaminant to guide Site activities and lead to a protective remedy.

H. The OSC met with representatives of NOAA and USFWS to discuss the results of toxicity testing and the future concepts for restoration of the Creek bank. Based upon consideration of the toxicity of the soils and habitat of the area, a capping effort that results in a minimum amount of synthetic material will be adopted. The OSC will balance the need for a non-erosive Creek bank with a desire for a natural bank. A seawall construction was evaluated and will no longer be considered. A soil cover will not likely provide sufficient protection against erosion at the water level. A soil cover with stone at the water level and near the existing seawall is a likely compromise.

I. Weston and the OSC met at the Site to evaluate the likely isolation barrier for separating the Site from the Brandywine Creek during the Removal Action. Due to the limited amount of level surface and abundance of angular rip rap, a portable dam or inflatable system was not deemed as effective as sheet pile. Thus, the OSC directed Weston to obtain appropriate geotechnical information to support installation of sheet pile. Weston held a pre-bid meeting at the Site on 23 May attended by subcontractors.

III. FUTURE ACTIONS

A. Continue review of ARARs provided by DNREC

B. Continue development of subsequent phases of the Erosion and Sedimentation Control Plan.

C. Coordinate with EPA, the City of Wilmington, DEDOT, and local business concerning the location of equipment and assets that may soon impede removal activities.

D. Construct access roads into and on the Site. This effort will require earth disturbance, grading, installation of a stabilized construction ramp, and other elements.

E. Mobilize the command area.

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Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 06
12th Street Dump Site
(aka 12th Street Landfill Site)
near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 7 June 2000)
Event: CERCLA Removal Action

A. Removal activities at this Site now include implementation of erosion and sedimentation control facilities and mobilization and establishment of command area and staging area.

B. Equipment and other assets belonging to a business adjacent to the Site remain in locations that will impede completion of the Removal Action. These equipment and assets are apparently located on three parcels of land. One parcel is owned by the Delaware Department of Transportation and one by the City of Wilmington (Economic Development Corp.). The OSC has discussed movement of these assets with their owner. Although the owner has pledged cooperation to move these equipment and assets in late April, very little has been done. The OSC estimates that the equipment will impede the Removal Action in about 40 days and has forwarded this information to EPA counsel. Additionally, the OSC has discussed the matter with the City of Wilmington as the most critical parcel containing equipment is along the banks of the Brandywine Creek and is owned by Wilmington's Economic Development Corp.

C. The rates of pay at this Site are governed by the Davis Bacon Act.

D. The Action Memorandum establishes an Estimated Project Ceiling of $1983,000. The proposed distribution of funding is as follows:

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 140,584	$ 1,623,000
SATA (Weston)		$ 120,000
EPA	$ 12,000	$ 240,000
TOTAL		$ 1,983,000

II. ACTIONS

A. Guardian coordinated and completed installation of utilities to the Site command and staging area. Potable water, electricity, and telephone lines have been installed. This effort was coordinated with Norfolk and Southern as these lines cross the active railroad. Potable water will feed the decontamination trailer. Water will also be hooked up to sanitation units to minimize the number of trips by vehicles across the tracks. These actions were directed by the OSC.

B. Guardian constructed a stabilized construction entrance to the Site. The construction entrance extends from the railroad tracks to the Site's Staging and Command areas. A culvert pipe allows water (which is trapped along the tracks due to a blocked drainage way) to pass under the construction entrance. The OSC directed that the construction entrance be built for one way traffic only. This will ensure that drivers focus their attention on the tracks rather than traffic to maximize safety.

C. Guardian installed siltation fencing around operational areas of the Site. The fencing was installed into a trench cut around soil stockpile and staging areas. Siltation fencing will minimize the movement of soil during storms. Currently, all Site runoff is directed into a natural low area (that also contains buried drums and debris) that will be made into a sedimentation pond.

D. Guardian prepared a Staging and Command area by removing existing soil (which appears to be dredge spoil) and installing new rock. The rock is actually recycled concrete rolled into place. This stabilized area will be used for staging of equipment, vehicles, and command facilities. Stockpiled soil may be used for construction of a sedimentation pond, berms for staging areas or backfill after drums and debris is removed.

E. Guardian prepared a roadway from the Staging area to the contaminated area. This roadway will also serve as decontamination area. The roadway is built with a rock dam to check water entering the sedimentation pond.

F. Weston continues preparation of the erosion and sedimentation control plan for the Site. The final submittal will contain information on the Site capping and related activities.

G. Weston obtained a subcontractor for installation of borings to collect geotechnical information to support the sheet pile effort. Drilling activities were initiated 7 June 2000 in the "mudflat" area.

H. The OSC directed Guardian to delay installation of the sedimentation pond until additional information could be obtained. The bank in the area of the pond is comprised of concrete chunks and railroad ties making a poor berm. Additionally, the outlet location requires modification to discharge outside the sheet pile. Additional engineering support is required and additional vegetation must be removed to better view this area. Additional siltation fence is installed to protect against erosion until the pond is installed.

III. FUTURE ACTIONS

A. Continue review of ARARs provided by DNREC.

B. Continue development of subsequent phases of the Erosion and Sedimentation Control Plan and coordinate this effort with DNREC. The OSC has requested that the plan be completed by June 30 since Weston will no longer be onsite past that date due to a change in technical support contractors.

C. Coordinate with EPA, the City of Wilmington, DEDOT, and local business concerning the location of equipment and assets that may soon impede removal activities and the needed relocation of those materials.

D. Complete staging areas and command area. Initiate effort to organize future staging of soil, contaminated soil, debris, drums, vegetation, etc.

E. Install sedimentation pond as modified and complete erosion control facilities.

F. Complete drilling and await results of geotechnical analysis. This effort will provide data to feed the sheet pile effort.

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Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 07
12th Street Dump Site
(aka 12th Street Landfill Site)
near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 21 June 2000)
Event: CERCLA Removal Action

A. Current Removal activities at this Site still include implementation of erosion and sedimentation control facilities and mobilization and establishment of command area and staging area.

B. Equipment and other assets belonging to a business adjacent to the Site remain in locations that will impede completion of the Removal Action. These equipment and assets are apparently located on three parcels of land. One parcel is owned by the Delaware Department of Transportation and one by the City of Wilmington (Economic Development Corp.). The OSC has discussed movement of these assets with their owner and the City of Wilmington. The owner continues to act cooperatively to move these equipment and assets, but progress remains slow. The OSC estimates that the equipment will impede the Removal Action in about 30 days and has begun to consider a schedule of Site operations that can be accomplished with some equipment remaining in the way. The OSC will continue to monitor the progress of the movement of these equipment items.

C. The EPA contract with Weston, which is now providing engineering support and Site technical support at the 12th Street location will expire on June 30. All support activities will be awarded to a new contractor on July 1. The new contractor is Tetra Tech. The OSC has begun discussion with Tetra Tech relating to a transition of responsibility.

D. Estimated Project Costs (as of June 16, 2000)

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 188,258	$ 1,623,000
SATA (Weston)	$ 4,918	$ 120,000
EPA	$ 8,554	$ 240,000
TOTAL	$ 201,730	$ 1,983,000

E. Representatives of DNREC and the City of Wilmington onsite this period to view Site setup operations and the location of assets on the City's property at the northern end of the Site.

II. ACTIONS

A. Guardian continued activities related to mobilization of the Site including mobilization and setup of a decontamination trailer and continued coordination with telephone and electrical connections to command area.

B. Guardian collects information about the configuration of the rock wall along the Site. The wall defines a portion of the Creek channel; an old bulkhead is nearby and a large portion of the wall has collapsed. The steel rods that once supported the old structure and now lie across the mudflat, have been removed to allow for installation of sheet pile.

C. Guardian begins installation of a sedimentation pond which will collect runoff through the Site. The pond will outlet to the Brandywine and is being constructed pursuant to the specifications provided by Weston in the E&S Control Plan. The original configuration of the outlet channel was moved to have the pond discharge outside of the future sheet pile and the elevation of the weir overflow was raised to accommodate extreme high tides. Water accumulating in the pond due to rain events during construction will be discharged to the phragmites area immediately south of the pond.

D. A small area of creosote coated pilings and an area of rubber hose disposal were encountered in the construction of the sedimentation pond. These potentially contaminated materials are segregated from the remainder of the soil removed from the pond.

E. Clean soil stockpiled in the staging area is used for construction of berms on the sedimentation pond.

F. The OSC and Weston observed all erosion and sedimentation control facilities at the Site. Heavy rains of June 17 and 18 did not generate a significant amount of flow through the Site. All facilities performed as intended and no facility was compromised by the rain. One small erosion gully was formed in the Staging area. The runoff entered the sedimentation pond under construction.

G. A subcontractor for Weston was onsite to complete collection samples for geotechnical information in the mudflat. A drill rig collected soil samples from depth in the mudflat to enable Weston to determine the appropriate sheet pile for the Site.

H. Weston evaluates distribution of arsenic and chromium concentrations in mudflat with elevated lead concentrations in mudflat. Although not exact, the data suggest that areas defined by elevated lead concentrations are also contaminated with arsenic and/or chromium at levels below 80% survival for invertebrates. Information suggests that existing contaminant distribution based upon lead, will suitably define elevated areas of arsenic and chromium.

I. Guardian and the OSC met with Weston engineering personnel to discuss minor modifications to existing erosion and sedimentation control facilities (sedimentation pond) and to discuss the upcoming grading plan for the future soil cover. Weston is now preparing a grading plan and performance specifications for the sheet pile.

III. FUTURE ACTIONS

A. Continue review of ARARs provided by DNREC.

B. Continue development of subsequent phases of the Erosion and Sedimentation Control Plan and coordinate this effort with DNREC. The OSC has requested that the plan be completed by June 30 since Weston will no longer be onsite past that date due to a change in technical support contractors.

C. Coordinate with EPA, the City of Wilmington, DEDOT, and local business concerning the location of equipment and assets that may soon impede removal activities and the needed relocation of those materials.

D. Complete staging plan.

E. Complete Installation of sedimentation pond as modified.

F. Await results of geotechnical analysis. This effort will provide data to feed the sheet pile effort.

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Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 08
12th Street Dump Site
(aka 12th Street Landfill Site)
near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 30 June 2000)
Event: CERCLA Removal Action

A. Current Removal activities at this Site still include activities necessary in advance of moving any contaminated soil. These activities include implementation of erosion and sedimentation control facilities, establishment of decontamination area, and preparation of a soil/debris staging area.

B. All installed erosion and sedimentation control facilities have functioned properly during several storm events. Siltation fencing has held soil and all drainage enters the sedimentation pond. No erosion from the Site has been observed. The pond is observed to slowly filter water during the low tide cycle as it should. Comments received from DNREC indicate a new procedure for installation of siltation fence which will be implemented for all newly installed fence. Additionally, existing fence will be modified during maintenance.

C. The business adjacent to the north side of the Site is now moving equipment and other assets remaining in locations that will impede completion of the Removal Action. The owner continues to act cooperatively to move these equipment and assets. The OSC estimates that the equipment will impede the Removal Action in about 20 days, and the fence now surrounding these assets will need to be relocated to the property line. The OSC will continue to monitor the progress of the movement of these equipment items.

D. The EPA contract with Weston, which is now providing engineering support and Site technical support at the 12th Street location expires this day. The new contractor, Tetra Tech, will initiate support operations on 5 July, pending proper insurance certification. The OSC has met with Tetra Tech and Weston to facilitate Site transition.

E. Estimated Project Costs (as of June 28, 2000)

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 223,685	$ 1,623,000
SATA (Weston)	$ 6,536	$ 120,000
EPA	$ 13,865	$ 240,000
TOTAL	$ 244,086	$ 1,983,000

ORIGINAL

F. Representatives of DNREC and the City of Wilmington onsite this period to view Site setup operations and the location of assets on the City's property at the northern end of the Site.

II. ACTIONS

A. Guardian continued setup of a decontamination area this period when weather did not permit installation of erosion and sedimentation control facilities. The decontamination area will be completed before work is initiated in the area of contamination.

B. Guardian completes installation of a sedimentation pond. The sedimentation pond collects runoff and migrating soil particles from the Site. The pond outlets to the Brandywine Creek and is constructed pursuant to the specifications provided by Weston in the E&S Control Plan as modified and documented herein. The original configuration of the outlet channel was moved south to allow the pond discharge outside of the future sheet pile. The elevation of the weir overflow was raised to 6 feet to accommodate extreme high tides. Fabric was installed under the outlet structure. These modifications will be documented on a revised drawing now in progress. Storm or Creek water which accumulated in the pond footprint during construction was discharged to the phragmites area immediately south of the pond. The berm/bank of the pond was seeded and covered with erosion control blanket (although phragmites is already taking over).

C. The debris (creosote-coated pilings, rubber hose) removed from a small area of the pond footprint is consolidated and segregated in the staging area. The majority of the soil removed from the pond was native soil without debris.

D. The OSC and Weston observed all erosion and sedimentation control facilities at the Site after heavy rain events. Heavy rains of June 20 and June 29 generated flow through the Site. All flow entered the sedimentation pond or pooled in a small area at the extreme north end of the Site. All flow from the command area, equipment staging area, and soil staging area entered the sedimentation pond. Siltation fencing functioned properly. A small gully in the staging area was repaired and filled with stone.

E. Weston and the OSC meet to discuss the components of the future grading and cover effort at the Site as well as specifications for the sheet pile. The OSC requested the following criteria be considered in the development of the sheet pile, grading and cover plans:

1. Potentially contaminated materials now located on Parcel #19 will remain on Parcel #19. These potentially contaminated materials will be consolidated, but not moved to adjacent parcels. Contaminated materials in the Creek bank will not be moved until sheet pile is installed.

2. The slope of the reconfigured Creek bank will not exceed 3:1. This slope will result in a stable configuration that will support construction efforts and most materials considered for armoring of the future Creek bank.

3. The minimum elevation of the Creek bank will not be lower than the 100 year flood level (e.g., 10 feet) except where the sedimentation pond outlets to the Creek.

4. The final surface of Parcel #19 will have an area of shallow slope similar to the area now existing on Parcel #19.

5. The Creek bank shall be "green", i.e., a 100% synthetic, block, or rock bank will not be constructed except as required to prevent erosion of the Creek bank.

6. The resultant grading and cover shall not increase flow of water onto adjacent properties.

7. The grading and cover shall consider the potential future installation or reestablishment of a drainage system to alleviate ponded water now on the railroad tracks. It appears that fill in the present fenced yard blocks drainage from the rail siding.

8. The final cover type and thickness is not determined, but an approximate 1.5 to 2 feet thickness should be considered in the planning process.

9. Sheet pile will be temporary.

III. FUTURE ACTIONS

A. Continue review of ARARs provided by DNREC.
B. Continue development of subsequent phases of the Erosion and Sedimentation Control Plan and coordinate this effort with DNREC. The OSC has requested that the plan be completed by June 30 since Weston will no longer be onsite past that date due to a change in technical support contractors.
C. Coordinate with EPA, the City of Wilmington, DELDOT, and local business concerning the location of equipment and assets that may soon impede removal activities and the needed relocation of those materials.
D. Complete decontamination area and staging plan.
E. Continue construction of staging area by installation of a soil berm along the east side to ensure that future drainage moves to the sedimentation pond as land elevation is modified on the west side of the Site.
F. Transition Site from Weston to Tetra Tech.
G. Receive, review and discuss the grading and cover plans with DNREC, DELDOT, USFWS, NOAA, and Wilmington. The OSC anticipates a meeting during the week of 10 July.

Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 09
12th Street Dump Site
(aka 12th Street Landfill Site)
near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 7 July 2000)
Event: CERCLA Removal Action

A. Current removal activities at this site still involve activities necessary in advance of moving any contaminated soil. These activities include implementation of erosion and sedimentation control facilities, establishment of decontamination area, and preparation of a soil/debris staging area.

B. All installed erosion and sedimentation control facilities have functioned properly during several storm events. Siltation fencing has held soil and all drainage enters the sedimentation pond. No erosion from the site has been observed. The pond is observed to slowly filter water during the low tide cycle as it should. Comments received from DNREC indicate a new procedure for installation of siltation fencing which will implemented for all newly newly installed fencing. Additionally, existing fencing will be modified during maintenance.

C. The business adjacent to the north side of the site is now moving equipment and other assets remaining in locations that will impede completion of the removal action. The owner continues to act cooperatively to move these assets. The OSC estimates that the assets will impede the removal action in approximately 10 days, and the fence now surrounding these assets will need to be relocated to the property line. The OSC will continue to monitor the progress of the movement of these assets.

D. Effective 5 July, Tetra Tech EM Inc. (TtEMI) has initiated support operations at the site; the OSC met with representatives of both Weston and TtEMI to facilitate the transition.

E. Representatives of DNREC onsite this period to view site operations and meet with OSC.

F. Estimated Project Costs (as of 7 July 2000)

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 245,181	$1,623,000
START (Weston/TtEMI)	$ 8,023	$ 120,000
EPA	$ 14,617	$ 240,000
TOTAL	$ 267,821	$1,983,000

II. ACTIONS

A. Guardian continued site setup operations in preparation for future actions at the site. Activities included the installation of a soil berm along the east side of the site to ensure that future drainage moves to the sedimentation pond as land elevation is modified on the west side of the site. In addition, Guardian installed an equipment drop and storage shed for decontamination purposes

B. OSC received the grading plan from Weston on 3 July; OSC and TtEMI met to discuss the components of the future grading and cover efforts at the site as well as specifications for the sheet pile (i.e. depth of installation).

C. OSC requested information from USCG regarding potential safety issues for Brandywine Creek associated with the future installation of sheet pile.

D. OSC instructed Guardian to excavate a series of test pits at the site in order to examine the general subsurface conditions in the future soil staging area, and to assist in delineating the boundaries of the disposal area.

III. FUTURE ACTIONS

A. Continue review of ARARS provided by DNREC

B. Coordinate with EPA, the City of Wilmington, DELDOT, and local business concerning the location of equipment and assets that may soon impede removal activities and the needed relocation of those materials.

C. Complete decontamination area and staging plan.

D. Review and discuss the grading and cover plans with DNREC, DELDOT, USFWS, NOAA, and the City of Wilmington. The OSC has arranged a meeting for 14 July at the site.

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Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 10
12th Street Dump Site
(aka 12th Street Landfill Site)
Near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 21 July 2000)
Event: CERCLA Removal Action

A. Erosion and sedimentation control facilities continue to function properly. Siltation fencing has held soil and all drainage enters the sedimentation pond. No erosion from the site has been observed. The OSC responded to DNREC comments on the Phase I erosion and sedimentation control plan

B. The business to the north of the Site has yet to move their perimeter fencing back to their property line. The OSC has spoken with the property owner about the fencing. In approximately 5 to 10 days, access to the yard is needed to enable additional extent of contamination operations and sheet pile installation.

C. OSC has identified waste material disposed in the DelDOT owned parcel. This situation will require extent of contamination and capping operations to occur on the DelDOT parcel. Since these tasks are not specified in the existing access agreement, the OSC requested EPA ORC and DelDOT to modify the agreement.

D. ERRS have a fully functional decontamination area set up, and have constructed berms along the perimeter to assist future Site grading operations.

E. Estimated Project Costs (as of 21 July 2000):

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 271,164	$1,623,000
START (Weston/TtEMI)	$ 9,093	$ 120,000
EPA	$ 20,680	$ 240,000
TOTAL	$ 300,937	$1,983,000

II. ACTIONS

A. On 12 July 2000, DelDOT, DNREC, USFWS were onsite for a capping material options meeting. DNREC and USFWS expressed concerns about

ORIGINAL

contaminant migration to the Brandywine Creek and its dependence on the type of capping material selected. All in attendance were in agreement with a 3:1 slope for the constructed streambank and removal of sheet piling after Site activities. In addition, all agreed that the most favorable bank capping material will offer both ecological benefits through a vegetative streambank cover and engineered controls in order to contain soils and provide containment of Site materials. One type of material discussed, which offers both of these benefits, is a honeycomb structured interlocking concrete material.

B. ERRS are in the process of removing debris (stumps, hoses, drums, large concrete pieces, etc.) to a depth of 2 to 3 in the area that requires grading. This operation is being performed in order to remove all debris and waste materials from the surface in order to grade the Site for capping without interference from debris or impact to drum materials.

C. Excavation of test pits followed by XRF analysis by DNREC has confirmed the presence of high concentrations of chromium, zinc, lead, and barium. Samples from these test pits will be sent out for laboratory analysis to verify the presence of these metals. The concentration of chromium is estimated at 20,000 parts per million (ppm).

D. During excavation activities, some drums have been unearthed. These drums have been removed from the excavation pits and immediate work area and are being temporarily stored onsite awaiting proper disposal.

III. FUTURE ACTIONS

A. Additional test pits will be excavated in order to determine the extent of contamination onsite.

B. Excavation to a depth of 4 feet at the higher ground areas adjacent to the Brandywine Creek continues in order to remove all debris from the soil surface.

C. START will conduct surface water sampling at suspected seepage points along the streambank per the request of USFWS in order to determine current contaminant migration offsite and to aid in selection of best capping material.

D. START will begin air sampling and aerosol monitoring of Site activities.

E. Guardian will hold a mandatory bid meeting for the sheet piling contract next week.

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Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 11
12th Street Dump Site
(aka 12th Street Landfill Site)
Near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 28 July 2000)
Event: CERCLA Removal Action

A. Erosion and sedimentation control facilities continue to function properly. Siltation fencing has held soil and all drainage enters the sedimentation pond. No erosion from the site has been observed. The OSC submitted Phase II erosion and sedimentation control plans to DNREC.

B. OSC has identified waste material disposed in the DelDOT owned parcel. This situation will require extent of contamination and capping operations to occur on the DelDOT parcel. Since these tasks are not specified in the existing access agreement, the OSC requested EPA ORC and DelDOT to modify the agreement.

C. START is now conducting air monitoring and sampling of ERRS' operators and response technicians during site operations in order to determine the concentrations of contaminant in respirable air. The first round of sampling was non detect for arsenic, lead, and chromium.

D. Estimated Project Costs (as of 28 July 2000):

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 312,408	$1,623,000
START (Weston/TtEMI)	$ 12,474	$ 120,000
EPA	$ 27,777	$ 240,000
TOTAL	$ 352,659	$1,983,000

II. ACTIONS

A. On 21 July 2000, Guardian held an onsite mandatory pre-bid meeting for the sheet piling contract. Bids are due on 31 July 2000. The contract will be awarded next week (7/31-8/4).

B. ERRS is removing debris (stumps, hoses, drums, large concrete pieces, etc.) to a depth of 2 to 3 feet in the area that requires grading. This operation was

performed in order to remove all debris and waste materials from the surface in order to grade the Site for capping without interference from debris or impact to drum materials.

C. Samples from test pits were sent out for analysis this week after DNREC screening analysis showed high concentrations of contaminants(lead, chromium).

D. The OSC spoke with a Norfolk and Southern representative onsite about possible installation of a drainage system, such as a pipe, prior to capping of the Site. This action will help prevent future Site disturbance. The Norfolk and Southern representative will talk with their engineers in order to make a decision about this.

E. START collected 6 surface water samples to analyze for total and dissolved metals. Four samples were collected along the streambank at suspected areas of seepage, one sample collected in the retention pond onsite, and one sample collected in the Brandywine Creek as a background.

F. A small amount of sheen was detected on the retention pond. ERRS placed sorbent pads on the pond to prevent offsite migration. All of the oil was contained onsite.

G. ERRS excavated test pits in the storage lot north of the fenceline in order to visually identify waste disposal. These pits were dug as part of the extent of contamination activities. ERRS gained access to the area by removing part of the fence which parallels the Brandywine Creek. Access to the property was granted by the property owner in a meeting with the OSC this week.

III. FUTURE ACTIONS

A. A geoprobe will be mobilized to the Site next week in order to collect 6 groundwater samples.

B. START will continue air sampling and aerosol monitoring of Site activities.

C. Guardian will award the contract for sheet piling installation, extraction, and equipment rental next week.

D. ERRS will begin to prepare the tidal flat for sheet piling installation by removing all large rocks and debris from the area of installation.

E. ERRS will award a contract for sheet piling installation structural monitoring. Structures of concern are the seawall and the warehouse, both located north of the Site.

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Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 12
12th Street Dump Site
(aka 12th Street Landfill Site)
Near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 4 August 2000)
Event: CERCLA Removal Action

A. Erosion and sedimentation control facilities continue to function properly. Siltation fencing has held soil and all drainage enters the sedimentation pond. No erosion from the site has been observed. The OSC submitted Phase II erosion and sedimentation control plans to DNREC.

B. OSC has identified waste material disposed in the DelDOT owned parcel. This situation will require extent of contamination and capping operations to occur on the DelDOT parcel. These tasks were not specified in the existing access agreement, the OSC requested and DelDOT modified the agreement on 4 August 2000.

C. START is now conducting air monitoring and sampling of ERRS operators and response technicians during site operations in order to determine the concentrations of contaminants in respirable air. Thus far, analytical results indicate concentrations far below risk based concentrations.

D. DNREC representative onsite to inspect progress of activities.

E. Estimated Project Costs (as of 4 August 2000):

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 323,055	$1,623,000
START (Weston/TtEMI)	$ 13,485	$ 120,000
EPA	$ 28,388	$ 240,000
TOTAL	$ 364,928	$1,983,000

II. ACTIONS

A. ERRS continued to remove debris (stumps, hoses, drums, large concrete pieces, etc.) to a depth of approximately 2 to 3 feet in the area requiring grading. This operation is being performed in order to remove all debris and

waste materials from the surface for proper grading and capping of the Site without interference from debris or impact to drum materials.

B. ERRS cleared a line for installation of sheet pile within the tidal flats by removing large rocks and debris which would otherwise prevent the installation. ERRS also received the bids for the sheet pile installation; the work was awarded to Georgia Lynch with a scheduled start date of 14 August 2000.

C. ERRS subcontracted a geoprobe operator to install borings and collect groundwater samples from beneath the site; a total of 6 groundwater samples were collected and shipped for laboratory analysis (dissolved metals).

D. During excavation activities, some drums have been unearthed; debris and waste materials are being temporarily staged onsite for future disposal.

E. Excavation activities within the fenced yard north of the site indicated waste burial; this information will necessitate expansion of the capping area.

III. FUTURE ACTIONS

A. Excavation and segregation of debris to continue in preparation for future grading and capping operations.

B. OSC Towle is currently awaiting response from Norfolk Southern representative regarding potential installation of a drainage system prior to capping of the site.

C. START awaiting receipt of analytical data for soil and surface water samples collected to verify the extent of contamination at the site and to characterize seepage emanating from the streambank during tidal fluctuations. ERRS to receive analytical data for groundwater samples.

D. START to continue air sampling and aerosol monitoring during excavation activities.

E. Sheet pile installation along Brandywine Creek to commence during the week of 14 August 2000.

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Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 13
12th Street Dump Site
(aka 12th Street Landfill Site)
Near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 11 August 2000)
Event: CERCLA Removal Action

A. Erosion and sedimentation control facilities continue to function properly. Siltation fencing has held soil and all drainage enters the sedimentation pond. No erosion from the site has been observed. The OSC submitted Phase II erosion and sedimentation control plans to DNREC.

B. START is now conducting air monitoring and sampling of ERRS operators and response technicians during site operations in order to determine the concentrations of contaminants in respirable air. Thus far, analytical results indicate concentrations far below risk based concentrations.

C. Estimated Project Costs (as of 11 August 2000):

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 339,769	$1,623,000
START (Weston/TtEMI)	$ 15,169	$ 120,000
EPA	$ 29,281	$ 240,000
TOTAL	$ 384,219	$1,983,000

II. ACTIONS

A. ERRS continued to remove debris (stumps, hoses, drums, large concrete pieces, etc.) to a depth of approximately 2 to 3 feet in the area requiring grading. This operation is being performed in order to remove all debris and waste materials from the surface for proper grading and capping of the Site without interference from debris or impact to drum materials.

B. In preparation for sheet pile installation operations, representatives of George & Lynch arrived onsite to begin assembling the crane and setting up other equipment to be used during the operation. In addition Schnabel Engineering representatives arrived onsite to document existing conditions of the sea wall and the building on the neighboring property to the north, and to assess the

property for monitoring which will be necessary to document that no damage is caused to structures within the surrounding area due to vibration associated with the sheet pile installation.

C. Despite repeated requests to Asset Recovery Services to move their equipment and fence near the northern site boundary, the fence, along with some equipment, remains in the access path; ERRS began removing the fence near the northern boundary of the site in order to provide access for the crane and other equipment. Some equipment belonging to Asset Recovery Services still remains in the access path, and will have to be moved prior to the start of operations on Monday, 14 August. Wilmington OEM officials met with Asset Recovery Services representatives, and reiterated the city's request to remove their equipment from the city-owned parcel.

D. During excavation activities, some drums have been unearthed; debris and waste materials are being temporarily staged onsite for future disposal.

III. FUTURE ACTIONS

A. Excavation and segregation of debris to resume upon completion of the sheet pile installation; air monitoring also to resume upon completion of sheet pile operations. ERRS subcontractor, George & Lynch, to be onsite on Monday 14 August to begin installing sheet pile.

B. OSC Towle is currently awaiting response from Norfolk Southern representative regarding potential installation of a drainage system prior to capping of the site.

C. START awaiting receipt of analytical data for soil and surface water samples collected to verify the extent of contamination at the site and to characterize seepage emanating from the streambank during tidal fluctuations. ERRS to receive analytical data for groundwater samples.

Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 14
12th Street Dump Site
(aka 12th Street Landfill Site)
Near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 18 August 2000)
Event: CERCLA Removal Action

A. Erosion and sedimentation control facilities continue to function properly. Siltation fencing has held soil and all drainage enters the sedimentation pond. No erosion from the site has been observed. The OSC submitted Phase II erosion and sedimentation control plans to DNREC.

B. START is now conducting air monitoring and sampling of ERRS operators and response technicians during site operations in order to determine the concentrations of contaminants in respirable air. Thus far, analytical results indicate concentrations far below risk based concentrations.

C. Estimated Project Costs (as of 18 August 2000):

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 630,945	$1,623,000
START (Weston/TtEMI)	$ 16,966	$ 120,000
EPA	$ 34,357	$ 240,000
TOTAL	$ 682,268	$1,983,000

II. ACTIONS

A. On August 8th, Schnabel Engineers was onsite to document conditions of structures including the seawall prior to sheet piling installation activities.

B. Schnabel Engineers was onsite to install seismographs in order to monitor installation of sheet piling being performed by George and Lynch (G&L).

C. On Monday, Guardian removed the last pieces of debris and fencing which obstructed crane access to the northern portion of the Site, the area which has been utilized by Asset Recovery Systems (ARS). Additionally, ARS has removed the last piece of equipment which was obstructing crane access for sheet piling installation.

D. D&L onsite this week installing sheet piling along the banks of Brandywine Creek. G&L began installation at the north end of the Site adjacent to the seawall, and are working from upstream to downstream. ERRS are assisting G&L with the installation operation.

E. Sheet piling being delivered at a rate of one shipment per day, which is approximately the rate of installation.

F. Guardian mobilized a flatbed with a grappler attachment and a 20 cubic rolloff in order to begin load out of debris stockpiled onsite. This accumulated debris was stockpiled and is being decontaminated in preparation for disposal at a local landfill.

III. FUTURE ACTIONS

A. Excavation and segregation of debris to resume upon completion of the sheet pile installation; air monitoring also to continue upon completion of sheet pile operations. ERRS subcontractor, George & Lynch, will continue installation of sheet piling next week, with expected completion at the end of the week.

B. OSC Towle is currently awaiting response from Norfolk Southern representative regarding potential installation of a drainage system prior to capping of the site. A meeting between Norfolk Southern and OSC Towle is scheduled for 8/23/00.

C. START awaiting receipt of analytical data for soil and surface water samples collected to verify the extent of contamination at the site and to characterize seepage emanating from the streambank during tidal fluctuations. ERRS to receive analytical data for groundwater samples. This data will be used in determining the type of capping material to be used.

Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 15
12th Street Dump Site
(aka 12th Street Landfill Site)
Near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 25 August 2000)
Event: CERCLA Removal Action

A. Erosion and sedimentation control facilities continue to function properly. Siltation fencing has held soil and all drainage enters the sedimentation pond. No erosion from the site has been observed. Tetra Tech has begun to develop plans for Phase III of erosion and sedimentation control plans: final grade and cover.

B. START is now conducting air monitoring and sampling of ERRS operators and response technicians during site operations in order to determine the concentrations of contaminants in respirable air. Thus far, analytical results indicate concentrations far below risk based concentrations.

C. Analytical results indicate that dissolved metal concentrations exiting the Site are below water quality standards. Total metal results indicate that the Site is contributing lead to the Brandywine Creek. The removal action will mitigate this release. Since total metals, and not dissolved metals, pose the threat, the Action will continue to focus on erosion control as the primary mitigating method. The cover material will not be a low permeability material.

D. Estimated Project Costs (as of 18 August 2000):

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 658,440	$1,623,000
START (Weston/TtEMI)	$ 18,425	$ 120,000
EPA	$ 36,707	$ 240,000
TOTAL	$ 713,572	$1,983,000

II. ACTIONS

A. On 21 August 2000, two 20 cubic yard rolloffs were loaded with rubber hoses and vegetative debris for disposal at a subtitle D landfill. These wastes underwent a gross decontamination prior to being loaded into the rolloff for disposal.

B. START received verbal results from laboratory analysis of surface water. Results indicate that dissolved contaminant levels are not significant. Results for total metals in surface waters indicate lead concentration between 8 and 21 ug/L at the Creek bank near identified seeps. The concentration of lead detected in the middle of the channel was 2.4 ug/L. Other metals are not elevated.

C. ERRS received results of groundwater samples collected from within the waste. The results do not indicate that elevated metal concentrations exist in the groundwater within the waste. Detection limits were high for these samples (As = 10 ug/L, Cr = 100 ug/L, Pb = 250 ug/L), but results support START surface water results and the OSC decision regarding cover material.

D. ERRS subcontractor, George and Lynch, completed installation of sheet piling on 23 August 2000.

E. Norfolk and Southern Railroad representatives J. Keys, J. Page, R. Scalf, and engineer J. McClain were onsite for a meeting with OSC Towle in reference to drainage for the railroad spur directly east of the Site.

F. ERRS installed 3-inch and 4-inch diameter gas powered pumps along streambank in order to drain area behind sheet piling. This pumped water is being directed to the retention pond located onsite.

G. ERRS and George and Lynch caulked leaking sheet piling seams in order to prevent water from entering Site during the high tide cycle.

H. ERRS began preliminary clearing of streambank by removing vegetation from the northern section of the streambank.

III. FUTURE ACTIONS

A. Devegetation and excavation of the streambank, followed by grading of the bank at a 3:1 ratio.

B. Grading of Site in preparation for capping.

C. Cap construction and installation upon completion of cap design by Tetra Tech engineers.

D. Continued air sampling and monitoring for respirable contaminant particulate.

Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 16
12th Street Dump Site
(aka 12th Street Landfill Site)
Near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 1 September 2000)
Event: CERCLA Removal Action

A. Erosion and sedimentation control facilities continue to function properly. Siltation fencing has held soil and all drainage enters the sedimentation pond. No erosion from the site has been observed. Tetra Tech has begun to develop plans for Phase III of erosion and sedimentation control plans: final grade and cover. A draft plan is anticipated during the week of 12 September 2000.

B. START continues air monitoring and sampling. Cartridges worn by ERRS operators and response technicians during site operations are analyzed in order to determine the concentrations of contaminants in respirable air. Thus far, analytical results indicate concentrations far below risk based concentrations. The OSC will use this information to reevaluate PPE needs.

C. Estimated Project Costs (as of 18 August 2000):

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 683,555	$1,623,000
START (Weston/TtEMI)	$ 20,029	$ 120,000
EPA	$ 41,219	$ 240,000
TOTAL	$ 744,803	$1,983,000

II. ACTIONS

A. ERRS and George and Lynch completed sealing leaks from seams of sheet piling. The temporary sheet pile has proved to be an effective barrier between the creek and the Site.

B. ERRS installed PVC pipes along the sheet piling, which will pump river seepage water found inside the sheet piling barrier over to the retention pond or to the river.

C. Tetra Tech engineer J. McCall onsite this week to discuss capping action and development of a capping plan which will include design 'tie-ins' for the articulating concrete block system to be installed on the streambank.

D. ERRS subcontractor, George and Lynch, demobilized their crane on 30 August.

E. ERRS continue to excavate streambank soils. These soils are then being relocated and graded onsite in order to properly cap the Site.

F. During excavation of streambank, ERRS unearthed a vein of green/white waste material. This material was relocated to the center of the Site, and covered with additional Site soils.

G. The OSC has requested input from DelDOT and WEDCO concerning future land use on the northern limits of the Site. The land use may affect the final placement of the soil cover.

III. FUTURE ACTIONS

A. Grading of Site in preparation for capping.

B. Cap construction and installation upon completion of cap design by Tetra Tech engineers.

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Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 17
12th Street Dump Site
(aka 12th Street Landfill Site)
Near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 8 September 2000)
Event: CERCLA Removal Action

A. Erosion and sedimentation control facilities continue to function properly. Siltation fencing has held soil and all drainage enters the sedimentation pond. No erosion from the site has been observed. Tetra Tech has begun to develop plans for Phase III of erosion and sedimentation control plans: final grade and cover. A final grade and capping plan is anticipated on 22 September 2000.

B. START continues air monitoring and sampling. Cartridges worn by ERRS operators and response technicians during site operations are analyzed in order to determine the concentrations of contaminants in respirable air. Thus far, analytical results indicate concentrations far below risk based concentrations. The OSC will use this information to reevaluate PPE needs.

C. Estimated Project Costs (as of 8 September 2000):

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 701,326	$1,623,000
START (Weston/TtEMI)	$ 21,113	$ 120,000
EPA --	$ 43,569	$ 240,000
TOTAL	$ 766,008	$1,983,000

II. ACTIONS

A. ERRS excavate and relocate streambank soils to lower lying areas of the Site per the subgrade plan developed by Weston, Inc. ERRS continue to survey the streambank in order to excavate the proper amount of soil in accordance with subgrade plan.

B. On 6 September, START collected a groundwater sample from geoprobe well GP3, located at the center of the Site. This sample will be analyzed for dissolved TAL metals.

C. ERRS excavated two test pits along the northern property boundary of the Site in order to determine northern capping limits. Upon discovery of wastes in these pits similar to those found onsite, the OSC has determined the cap will extend to the concrete lot directly to the south of Asset Recovery Systems office building.

D. Tetra Tech engineer J. McCall onsite this week to discuss additional areas to be included in the final capping action, the adjustment to the final height of the streambank fortification material, and retention pond options when final capping action takes place.

III. FUTURE ACTIONS

A. Grading of Site in preparation for capping.

B. Cap construction and installation upon completion of cap design by Tetra Tech engineers.

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Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 18
12th Street Dump Site
(aka 12th Street Landfill Site)
Near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC

cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 15 September 2000)
Event: CERCLA Removal Action

A. Erosion and sedimentation control facilities continue to function properly. Siltation fencing has held , all drainage enters the sedimentation pond, and pond water remains clear. No erosion from the site has been observed. Tetra Tech to developed plans for Phase III of erosion and sedimentation control plans: final grade and cover. A final grade and capping plan is anticipated on 22 September 2000.

B. START continues air monitoring for total respirable dust in air. Analytical results indicate concentrations far below risk based concentrations. On 8 September 2000, START RSO concurs with dropping PPE level to level D. The OSC informed Guardian that the respiratory requirement for Site operations is removed, but that workers should use good judgement about need for PPE in very dusty conditions.

C. Estimated Project Costs (as of 15 September 2000):

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 723,740	$1,623,000
START (Weston/TtEMI)	$ 25,911	$ 120,000
EPA	$ 46,483	$ 240,000
TOTAL	$ 796,134	$1,983,000

II. ACTIONS

A. ERRS excavates and relocates streambank soils to lower lying areas of the Site per the subgrade plan developed by Weston, Inc. ERRS prepares streambank with a 3:1 slope and slight curve to maximize constructability of new streambank.

B. ERRS begin dust suppression measures utilizing a garden sprinkler to wet the surface soils.

C. ERRS pumped waters from the pond in order to fill western area of pond with stockpiled topsoils. This area was filled in order to continue subgrade of streambank at a 3:1 ratio and to ensure good cover over an area where oil was leaking from the waste area (a small area of the sediment pond was constructed very close to the waste disposal area).

III. FUTURE ACTIONS

A. Load out of tree/plant debris to local landfill.

B. Grading and compacting soils onsite in preparation for capping activities.

C. Cap construction and installation upon completion of cap design by Tetra Tech engineers.

D. On September 22, a meeting occurred with landowners to resolve the cap and cover issues at the northern end of the site.

Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 19
12th Street Dump Site
(aka 12th Street Landfill Site)
Near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC
cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 22 September 2000)
Event: CERCLA Removal Action

A. Erosion and sedimentation control facilities continue to function properly. Siltation fencing has held, all drainage enters the sedimentation pond, and pond water remains clear. No erosion from the site has been observed. Tetra Tech developing plans for Phase III of erosion and sedimentation control plans: final grade and cover. A final grade and capping plan will be delivered 25 September 2000.

B. START continues air monitoring for total respirable dust in air. Analytical results indicate concentrations far below risk based concentrations (0.00-0.02 mg per cubic meter). On 8 September 2000, START RSO concurs with dropping PPE level to level D. The OSC informed Guardian that the respiratory requirement for Site operations is removed, but that workers should use good judgement about need for PPE in very dusty conditions.

C. On 22 September, OSC Towle had a meeting to discuss ARS equipment stored onsite at north end of the property, and use of property after EPA completes activities. In order to complete activities, ARS will have to move its equipment. Use of property will hinge on owner's permitted land use. EPA will install a cover material that will not negate desired land use while providing protection from threats posed by Site. Attendance at this meeting included representatives from DelDOT, DNREC, ARS, City of Wilmington Law Department, WEDCO, EPA, Guardian, START, private property owner, and tenant of parcel at north end of Site.

D. Estimated Project Costs (as of 22 September 2000):

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 752,386	$1,623,000
START (Weston/TtEMI)	$ 29,331	$ 120,000
EPA	$ 47,846	$ 240,000
TOTAL	$ 829,563	$1,983,000

Note: ERRS Delivery Order ceiling increase of $ 470,000 as of 19 September 2000.

II. ACTIONS

A. ERRS excavates and relocates streambank soils to lower lying areas of the Site per the subgrade plan developed by Weston, Inc. ERRS prepares streambank with a 3:1 slope and slight curve to maximize constructability of new streambank.

B. ERRS compacting the streambank with roller following the subgrade plan. ERRS using a safety cable attached to the roller to minimize damage to graded creek bank and to maximize safety of operator working on streambank.

C. On 19 and 20 September, ERRS performed a gross decontamination of tree stumps and vegetative debris. 73.07 tons of this debris was transported and disposed of at Delaware Recyclable Products during these two days.

D. On 20 September, START monitored well GP3 for groundwater depth. The groundwater at this well location, which is situated at the center of the Site, remained at approximately 4.25 feet above sea level (3.75 feet below surface) throughout the day. Sheet pile and pond appear to work to lower water levels in area of Site. No water ponding has been observed along tracks east of Site.

III. FUTURE ACTIONS

A. Grading and compacting soils onsite in preparation for capping activities.
B. Acquisition of articulating concrete block system and capping materials (soils, fabrics).
C. Cap construction and installation upon completion of cap design by Tetra Tech engineers.
D. Extraction of sheet piling and preparation of Site for winter season.

Michael Towle, OSC
EPA Region III
Philadelphia, PA

POLREP 20
12th Street Dump Site
(aka 12th Street Landfill Site)
Near 12th Street ramp to I-495
Wilmington, DE 19802

ATTN: RRC
cc: A. Breslin
P. Welsh
Wilmington Council
G. Giles

I. SITUATION (as of 6 October 2000)
Event: CERCLA Removal Action
Approval of a Request for Additional Funding and Exemption from the 12 month and $2 Million Statutory Limits

A. Erosion and sedimentation control facilities continue to function properly. Siltation fencing has held, all drainage enters the sedimentation pond, and pond water remains clear. Dirt and debris from Site operations has clogged the rock check dam which now needs to be cleaned. No erosion from the site has been observed and ponded water remains clear. Tetra Tech delivered plans for Phase III of erosion and sedimentation control plans: final grade and cover on 25 September 2000 and these plans were delivered to DNREC.

B. START continues air monitoring for total respirable dust in air. Analytical results indicate concentrations far below risk based concentrations (0.00-0.02 mg per cubic meter).

C. On 22 September, OSC Towle had a meeting to discuss ARS equipment stored onsite at north end of the property, and use of property after EPA completes activities. In order to complete activities, ARS will have to move its equipment. Use of property will hinge on owner's permitted land use. EPA will install a cover material that will not negate desired land use while providing protection from threats posed by Site. Attendance at this meeting included representatives from DelDOT, DNREC, ARS, City of Wilmington Law Department, WEDCO, EPA, Guardian, START, private property owner, and tenant of parcel at north end of Site. DelDOT requested owner to vacate State property by 16 October 2000.

D. EPA Region III approved additional funding for this project, necessitated by increased area requiring soil cover. The OSC requested and received exemption from the 12 month and $2 million dollar statutory limits. Revised Site ceilings are indicated below.

E. ERRS groundwater sampling, which occurred on 7/31/00, was reanalyzed on 9/6/00. Results indicate that sample GP-1 had a lead result of 0.082 mg/L. All other samples were below the detection limit of 0.005 mg/L. Results indicate that contaminant is migrating from the Site soils into the environment (groundwater). Additional sampling on 9/6/00 by START at geoprobe sample location GP-3 supported the original sample results reported by ERRS.

F. Estimated Project Costs (as of 6 October 2000):

ORGANIZATION	COSTS TO DATE	CEILING
ERRS (Guardian)	$ 774,230	$2,070,000
START (Weston/TtEMI)	$ 30,676	$ 120,000
EPA	$ 52,358	$ 240,000
Unallocated	----------	103,000
TOTAL	$ 857,264	$2,533,000

II. ACTIONS

A. ERRS survey elevations of proposed swale area in order to ensure proper Site drainage. Swale will begin at north end of Site at elevation of 11 feet above sea level, and will terminate at the sediment retention pond at elevation 5.5 feet. The highest point of this swale corresponds to the original location of the drainage divide at this Site (very close to fenceline of storage area).

B. ERRS conducting final grading, and compacting the streambank with roller following the subgrade plan. Water (groundwater) seeps from the toe of the creek bank; this water causes orange (iron?) film on the sediment. This area produced this seepage and coloration prior to EPA Removal Action. Sampling of this seep is to be conducted by START.

C. START delivered grading/capping plans to OSC on 25 September 2000. Plans also delivered on 27 September 2000 to DNREC Sediment and Stormwater engineer for review. The cover process is anticipated to commence during the week of 9 October 2000.

D. ERRS used submersible pump and opened small drainage pathways in order to drain waters into the retention pond after heavy rainfall during the week flooded much of the Site.

E. ERRS regraded access areas of the Site and reconfigured stockpiles of soil and waste in order to continue subgrade activities per the subgrade plans.

III. FUTURE ACTIONS

A. On 3 October 2000, START will collect 3 water samples along the streambank at seepage areas. Two samples will be analyzed for total TAL metals. One sample will be analyzed for total TAL metals, pesticides/PCBs, cyanide, volatile organics, and semi-volatile organics. Each of the sample locations will be chosen based on seepage flow rate and the discoloration of soils evident at these locations. Turnaround time for results will be one week, with two samples for total TAL metals at 48 hour turnaround.

B. Grading and compacting soils onsite in preparation for capping activities.

C. Disposal of waste debris stockpiled onsite after proper sampling and waste classification.

D. Acquisition of articulating concrete block system (ACBs) and capping materials (soils, fabrics), followed by cap construction and installation.

E. Extraction of sheet piling and preparation of Site for winter season.

Michael Towle, OSC
EPA Region III
Philadelphia, PA